

What is claimed is:

1. An individually operated escape device for escaping from a burning building, said device comprising

a frame having a seat for receiving at least one individual thereon;

at least one rotatable wheel mounted on said frame below said seat for spacing said seat from a building;

a vertically disposed guide mounted on said frame at a forward position of said seat for guiding a cable means therein;

a reel rotatably mounted on said frame below said guide for unwinding of the cable means therefrom;

a hydraulic energy absorber mounted on said frame and operatively connected to said reel to regulate rotation of said reel; and

a manually operable speed regulating valve mounted on said frame for adjusting said hydraulic energy absorber to control the speed of rotation of said reel to control a rate of descent of said frame along the cable means.

2. An escape device as set forth in claim 1 wherein said energy absorber includes a housing having an inlet for an inflow of hydraulic fluid, an outlet for an outflow of hydraulic fluid and a plurality of circumferentially disposed passages for a flow of hydraulic fluid from said inlet to said outlet; a plurality of piston check valves, each said check valve being slidably mounted in a respective passage to move between a retracted position to allow hydraulic fluid to flow from said inlet into said respective passage and an extended position to block flow of hydraulic fluid from said inlet into said respective passage while discharging hydraulic fluid from said respective passage through said outlet; and a wobble plate connected to said reel to rotate therewith and

connected to each said piston check valve to reciprocate each said piston check valve in a respective passage between said positions thereof.

3. An escape device as set forth in claim 2 further comprising a hydraulic line connected to and between said inlet and said outlet to define a closed loop.

4. An escape device as set forth in claim 3 wherein said regulating valve is disposed in said hydraulic line to selectively open and close said line to a flow of hydraulic fluid therethrough.

5. An escape device as set forth in claim 3 further comprising a second valve in said hydraulic line for selectively opening and closing said line to a flow of hydraulic fluid therethrough and a tail skid pivotally mounted on said frame in depending relation, said tail skid being connected to said second valve to actuate said second valve to close said hydraulic line in response to said skid contacting a ground surface and pivoting relative to said frame.

6. A device as set forth in claim 1 which further comprises an adjustable belt mounted on said guide above said seat for enveloping an individual seated on said seat.

7. A device as set forth in claim 6 which further comprises at least one flexible strap secured to and between said belt strap and said seat to contain an individual on said seat.

8. A device as set forth in claim 1 wherein said guide has a skeletal cross-section of rectangular shape.

9. A device as set forth in claim 8 which further comprise a cable means passing through said guide.

10. A device as set forth in claim 9 wherein said cable means is one of a wire and a braided cable.

11. An individually operated escape device for escaping from a burning building, said device comprising

a seat for receiving at least one individual thereon;

at least one rotatable wheel below said seat for spacing said seat from a building;

a vertically disposed guide at a forward position of said seat for slidably receiving a cable means therein, said guide having a skeletal cross-section of rectangular shape and a centrally disposed bore for receiving the cable means therein.;

a manually operable speed regulating brake mounted on said guide for releaseably engaging the cable means passing through said guide to control a rate of descent along the cable means, said regulating brake including a mounting plate secured to said guide, a threaded screw threadably mounted in said mounting plate, a brake shoe mounted on one end of said screw within said guide for selectively engaging a cable means passing through said guide, and a manually grippable lever secured to said screw for rotating said screw in said mounting plate to move said brake shoe into engagement with the cable means; and

a manually operable emergency brake mounted on said guide for releaseably engaging the cable means passing through said guide to arrest descent along the cable means, said emergency brake including a housing secured to said guide for passage of the cable means therethrough; a hollow stem disposed coaxially of said housing, said stem having a threaded portion within said housing; a split sleeve threadably mounted on said stem within said housing, said split sleeve having a conically shaped lower end disposed in mating relation with a conically shaped internal surface of said housing; and

a lever secured to said hollow stem for rotating said stem to pull said lower end of said sleeve into said housing and to engage with the cable means passing therethrough.

12. A device as set forth in claim 11 which further comprise a cable means passing through said guide.

13. A device as set forth in claim 12 wherein said cable means is one of a wire and a braided cable.

14. A device as set forth in claim 12 which further comprises a shock absorber mounted on said cable means at a lower end thereof for impacting of said guide thereon.

15. A device as set forth in claim 14 wherein said shock absorber includes a mounting block slidably mounted on said cable means, an adjusting means for selectively securing said block to said cable means, a resilient member mounted on said block concentrically of said cable means and a washer mounted on said resilient member for impacting of said guide thereon.

16. A device as set forth in claim 12 which further comprise a hook secured to an upper end of said cable means for engaging with an anchor means in a building.

17. A device as set forth in claim 11 which further comprises a foot rest secured to said guide below said seat .

18. An individually operated escape device for escaping from a burning building, said device comprising

a cable means;

a vertically disposed guide having a bore slidably receiving said cable means;

a sling suspended from said guide for receiving an individual;

a manually operable speed regulating brake mounted on said guide for releaseably engaging said cable means passing through said guide to control a rate of descent along said cable means; and

a manually operable emergency brake mounted on said guide for releaseably engaging said cable means passing through said guide to arrest descent along said cable means.

19. A device as set forth in claim 18 wherein said guide has a skeletal cross-section of rectangular shape.

20. A device as set forth in claim 19 wherein said emergency brake includes a mounting block secured to said vertical guide; a vertically disposed tube slidably mounted in and projecting from said block for passage of said cable means therethrough; a conically shaped sleeve secured to said tube and having a slotted upper end slidably disposed within said block to receive said cable means therein; and a toggle mechanism mounted on said block and secured to said tube for selectively pulling said tube from said block to move said slotted end of said conically shaped sleeve into said block to engage said cable means passing therethrough.

21. A device as set forth in claim 18 which further comprises a shock absorber mounted on said cable means at a lower end thereof for impacting of said guide thereon.

#190645